HU-25C Guardian 09/28/15

Aircraft:
HU-25A Guardian #525 (See full schedule)
Flight Number:
OIB2015 Arctic Sea Ice West
Payload Configuration:
ATM & DMS
Nav Data Collected:
No
Total Flight Time:
3.7 hours
Submitted by:
Luci Crittenden on 09/28/15
Flight Segments:

From:	BGTL	**To:**	BGTL
Start:	09/28/15 14:05 Z	**Finish:**	09/28/15 17:47 Z
Flight Time:	3.7 hours		
Log Number:	15F005	**PI:**	John Woods
Funding Source:	Thomas Wagner - NASA - SMD - ESD Cryosphere & International Polar Year		
Purpose of Flight:	Science		
Comments:	The first Sea Ice Flight was flown out of Thule today in support of the 2015 Arctic OIB program. Lack of good weather in areas of interest this morning delayed the takeoff by 2.5 hours. Next flight tentatively scheduled for tomorrow, Tuesday, September 29.		

Flight Hour Summary:

	15F005	16F002
Flight Hours Approved in SOFRS	100	
Flight Hours Previously Approved		67.4
Total Used	32.6	65.3
Total Remaining		2.1

16F002 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
10/05/15	OIB2015 Arctic Sea Ice Central	Science	3.6	3.6	63.8
10/05/15	OIB2015 Arctic Sea Ice East	Science	3.8	7.4	60
10/06/15	OIB2015 Arctic Ice-Sat2 North	Science	4	11.4	56
10/07/15	OIB2015 Arctic Transit Thule to Kangerlussuaq	Transit	2	13.4	54
10/08/15	OIB2015 Arctic Southwest Coastal A	Science	3.8	17.2	50.2
10/08/15	OIB2015 Arctic Thomas-Jakobshavn 01	Science	3.7	20.9	46.5
10/09/15	OIB2015 Arctic Umanaq B	Science	3.9	24.8	42.6
10/13/15	OIB2015 Arctic Jakobshavn Eqip Store	Science	2.9	27.7	39.7
10/13/15	OIB2015 Arctic Southeast Coastal A	Science	3.6	31.3	36.1
10/18/15	OIB2015 Arctic Southeast Coastal B	Science	4.1	35.4	32
10/19/15	OIB2015 Arctic Helheim-Kangerdlugussuaq	Science	3.7	39.1	28.3
10/19/15	OIB2015 Arctic Helheim-Kangerdlugussuaq Gap B	Science	3.9	43	24.4
10/20/15	OIB2015 Arctic Jakobshavn Mop-Up	Science	3.7	46.7	20.7

10/20/15	OIB2015 Arctic Southwest Coastal B	Science	3.7	50.4	17
10/21/15	OIB2015 Arctic Southwest Coastal C	Science	3.4	53.8	13.6
10/21/15	OIB2015 Arctic K-EGIG-Summit	Science	3.7	57.5	9.9
10/22/15	OIB2015 Arctic Mopup South	Science	2	59.5	7.9
10/22/15	OIB2015 Arctic Ferry BGSF-CYYR	Ferry	2.2	61.7	5.7
10/23/15	OIB2015 Arctic Ferry CYYR-KRIC	Ferry	3.3	65	2.4
10/23/15	OIB2015 Arctic Ferry CYYR-KRIC	Ferry	0.3	65.3	2.1

Source URL: https://airbornescience.nasa.gov/flight_reports/HU-25C_Guardian_09_28_15

Related Science Report:

OIB - HU-25C Guardian 09/28/15 Science Report

Mission:
OIB
Mission Summary:

Mission: Falcon Sea Ice West (priority: medium)

This mission is similar to the western ?bunny ear? of the Zigzag West mission flown in Spring 2015. However the pattern has been rotated slightly toward the east in order to better distribute the net coverage obtained by the suite of sea ice flights.

Weather today was quite poor in general, with northern Greenland completely obscured by clouds associated with a well-organized low-pressure system centered over the ice sheet. Our sea ice targets were largely obscured as well, by a mixture of cirrus, low-level stratus, and fog. However the morning satellite imagery showed a confined strip with only scattered cloudiness north of Ellesmere Island, and we selected the only flight which was an approximate fit to this narrow clear area. With only a few more days available in our schedule to accomplish sea ice flights and none in the bag so far, we felt it was appropriate to risk the loss of significant data due to weather today. We did encounter extensive cloudiness at several elevations during much of the flight, but

were able to obtain solid ATM, DMS, and FLIR data for approximately the northern 50% of both the eastern and western sea ice legs of this mission. On the southern half of the western leg, we obtained scattered optical data through a stratus deck.

All instruments performed well today. However the lighting conditions were poor for the DMS instrument, with solar elevation angles below 5 deg for most of the data collection legs, and below 1 deg for the northernmost portions. Shadowing from clouds also adversely affected DMS.

We flew the majority of the flight at 33,000' MSL, and were prevented from climbing higher due to air traffic concerns.

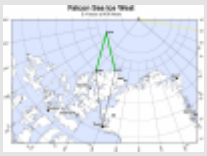
We conducted a ramp pass at 2000' MSL.

Data volumes:
DMS: 12.1 Gb
Narrow Swath ATM: 24 Gb
FLIR: 1.9 Gb

total data collection time: 3.6 hrs

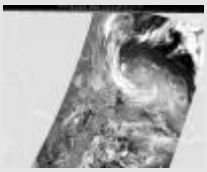
Images:

Map of Falcon - Sea Ice West



Read more

Weather satellite image from this morning



Read more

Falcon pilots preparing for flight.

Read more

Submitted by:
John Sonntag on 09/28/15

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

15F005 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining

09/15/15	OIB #1	Check	2.7	2.7	97.3
09/20/15	OIB #2, 3, 4	Ferry	2.7	5.4	94.6
09/21/15	OIB #2, 3, 4	Ferry	2.3	7.7	92.3
09/21/15	OIB #2, 3, 4	Ferry	2	9.7	90.3
09/23/15	OIB2015 Arctic North Central Gap 02	Science	3.9	13.6	86.4
09/24/15	OIB2015 Arctic Northwest Coastal A	Science	3.7	17.3	82.7
09/25/15	OIB2015 Arctic Northwest Coastal B	Science	3.8	21.1	78.9
09/28/15	OIB2015 Arctic Sea Ice West	Science	3.7	24.8	75.2
09/30/15	OIB2015 Arctic North Central Gap 01	Science	3.9	28.7	71.3
09/30/15	OIB2015 Arctic Zachariae-79N	Science	3.9	32.6	67.4